

IN THE
UNITED STATES PATENT AND TRADEMARK OFFICE

Inventor(s): Winthrop D. Childers et al.

Confirmation No.:

Application No.:

Examiner:

Filing Date: Herewith

Group Art Unit:

Title: METHOD OF SORTING CELLS ON A BIODEVICE

Commissioner for Patents
PO Box 1450
Alexandria, VA 22313-1450

INFORMATION DISCLOSURE STATEMENT

Sir:

This Information Disclosure Statement is submitted:

- ☒ under 37 CFR 1.97(b), or
(Within three months of filing national application; or date of entry of national application; or before mailing date of first office action on the merits; whichever occurs last)
- ☐ under 37 CFR 1.97(c) together with either a:
☐ Statement under 37 CFR 1.97(e), or
☐ a \$180.00 fee under 37 CFR 1.17(p), or
(After the CFR 1.97 (b) time period, but before final action or notice of allowance, whichever occurs first)
- ☐ under 37 CFR 1.97 (d) together with a:
☐ Statement under 37 CFR 1.97(e)(1) or (2), and
☐ a \$180.00 fee set forth in 37 CFR 1.17(p).
(Filed after final action, a notice of allowance, on or before payment of the issue fee)

Please charge to Deposit Account **08-2025** the sum of \$0.00. At any time during the pendency of this application, please charge any fees required or credit any overpayment to Deposit Account **08-2025** pursuant to 37 CFR 1.25.

☒ Applicant(s) submit herewith Form PTO 1449 - Information Disclosure Statement together with any required copies of patents, publications or other information of which applicant(s) are aware, which applicant(s) believe(s) may be material to the examination of this application and for which there may be a duty to disclose in accordance with 37 CFR 1.56.

☐ A concise explanation of the relevance of foreign language patents, foreign language publications and other foreign language information listed on PTO Form 1449, as presently understood by the individuals(s) designated in 37 CFR 1.56 (c) most knowledgeable about the content is given on the attached sheet, or where a foreign language patent is cited in a search report or other action by a foreign patent office in a counterpart foreign application, an English language version of the search report or action which indicates the degree of relevance found by the foreign office is listed on form PTO 1449 and is enclosed herewith.

It is requested that the information disclosed herein be made of record in this application.

"Express Mail" label no. EV 365585494 US

Date of Deposit Mar. 25, 2004

I hereby certify that this is being deposited with the United States Postal Service "Express Mail Post Office to Addressee" service under 37 CFR 1.10 on the date indicated above and is addressed to: Commissioner for Patents, Alexandria, VA 22313-1450.

By

Vernell Beal

Typed Name: Vernell Beal

Respectfully submitted,

Winthrop D. Childers et al.

By

Scott A. Lund
Scott A. Lund

Attorney/Agent for Applicant(s)
Reg. No. 41,166

Date: Mar. 25, 2004

FORM PTO-1449 LIST OF PATENTS AND PUBLICATIONS FOR APPLICANT'S INFORMATION DISCLOSURE STATEMENT (Use several sheets if necessary)	ATTY. DOCKET NO. 200314152	APPLICATION NO.	CONFIRMATION NO.
	APPLICANT Winthrop D. Childers et al.		
	FILING DATE Herewith	GROUP	

REFERENCE DESIGNATION U.S. PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER	PUBLICATION DATE	NAME	Pages, Columns, Lines Where Relevant Passages or Figures Appear
	1A	4,874,507	Oct. 17, 1989	Whitlock	
	1B	4,911,806	Mar. 27, 1990	Hofmann	
	1C	5,126,022	Jun. 30, 1992	Soane et al.	
	1D	5,454,472	Oct. 3, 1995	Benecke et al.	
	1E	5,589,047	Dec. 31, 1996	Coster et al.	
	1F	5,626,734	May 6, 1997	Docoslis et al.	
	1G	5,653,859	Aug. 5, 1997	Parton et al.	
	1H	5,814,200	Sep. 29, 1998	Pethig et al.	
	1I	5,858,192	Jan. 12, 1999	Becker et al.	
	1J	5,938,904	Aug. 17, 1999	Bader et al.	
	1K	5,993,630	Nov. 30, 1999	Becker et al.	

FOREIGN PATENT DOCUMENTS

		DOCUMENT NUMBER	PUBLICATION DATE	NAME OF PATENTEE OR APPLICANT	Pages/Columns/Lines Where Relevant Passages/Figures Appear	Check if Translation attached
	1L	WO 97/34689	09/25/1997	UC of N. Wales		x
	1M	WO 98/10869	03/19/1998	Scientific Generics		x
	1N	WO 02/12896	02/14/2002	Aviva Biosciences Co		x
	1O	WO 02/28523	04/11/2002	Aviva Biosciences Co		x
	1P	WO 03/014291	02/20/2003	Vanderbilt Univ.		x

OTHER REFERENCES (including Author, Title, Date, Pertinent Pages, etc.)

1Q	Tsuda, Takao, Yamauchi, Norihiro, and Kitagawa, Shinya, "Separation of Red Blood Cells at the Single Cell Level by Capillary Zone Electrophoresis", Analytical Sciences, Vol. 16, pps. 847-850, (August 2000).
1R	Holmes, David and Morgan, Hywel, "Cell Positioning and Sorting Using Dielectrophoresis", European Cells and Materials, Vol. 4, Suppl. 2, pps. 120-122, (2000).
1S	Swiss Center for Electronics and Microtechnology, "Dielectrophoretic Size-Sensitive Particle Filter for Micro-Fluidic Applications", 2 pgs., printed 2/24/04 from www.csem.ch/corporate/Report 2002/pdf/microrobotics.pdf

EXAMINER	DATE CONSIDERED
----------	-----------------

FORM PTO-1449

LIST OF PATENTS AND PUBLICATIONS FOR
APPLICANT'S INFORMATION DISCLOSURE
STATEMENT

(Use several sheets if necessary)

ATTY. DOCKET NO.

200314152

APPLICATION NO.

CONFIRMATION NO.

APPLICANT

Winthrop D. Childers et al.

FILING DATE

Herewith

GROUP

REFERENCE DESIGNATION

U.S. PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER	PUBLICATION DATE	NAME	Pages, Columns, Lines Where Relevant Passages or Figures Appear
	2A	5,993,631	Nov. 30, 1999	Parton et al.	
	2B	6,056,861	May 2, 2000	Fuhr et al.	
	2C	6,059,950	May 9, 2000	Dames et al.	
	2D	6,149,789	Nov. 21, 2000	Benecke et al.	
	2E	6,193,866	Feb. 27, 2001	Bader et al.	
	2F	6,197,176	Mar. 6, 2001	Pethig et al.	
	2G	6,264,815	Jul. 24, 2001	Pethig et al.	
	2H	6,287,832	Sep. 11, 2001	Becker et al.	
	2I	6,306,272	Oct. 23, 2001	Soane et al.	
	2J	6,310,309	Oct. 30, 2001	Ager et al.	
	2K	20020005354	Jan. 17, 2002	Spence et al.	

FOREIGN PATENT DOCUMENTS

		DOCUMENT NUMBER	PUBLICATION DATE	NAME OF PATENTEE OR APPLICANT	Pages/Columns/Lines Where Relevant Passages/Figures Appear	Check if Translation attached
	2L	WO 03/093496	11/13/2003	Genoptix, Inc.		
	2M					
	2N					
	2O					
	2P					

OTHER REFERENCES (including Author, Title, Date, Pertinent Pages, etc.)

	2Q	
	2R	
	2S	

EXAMINER

DATE CONSIDERED

FORM PTO-1449 LIST OF PATENTS AND PUBLICATIONS FOR APPLICANT'S INFORMATION DISCLOSURE STATEMENT (Use several sheets if necessary)	ATTY. DOCKET NO. 200314152	APPLICATION NO.	CONFIRMATION NO.
	APPLICANT Winthrop D. Childers et al.		
	FILING DATE Herewith	GROUP	

REFERENCE DESIGNATION

U.S. PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER	PUBLICATION DATE	NAME	Pages, Columns, Lines Where Relevant Passages or Figures Appear
	3A	20020036141	Mar. 28, 2002	Gascoyne et al.	
	3B	20020042125	Apr. 11, 2002	Peterson et al.	
	3C	20020055167	May 9, 2002	Pourahmadi et al.	
	3D	6,403,367	Jun. 11, 2002	Cheng et al.	
	3E	20020076825	Jun. 20, 2002	Cheng et al.	
	3F	6,465,225	Oct. 15, 2002	Fuhr et al.	
	3G	20020182627	Dec. 5, 2002	Wang et al.	
	3H	20020182654	Dec. 5, 2002	Jing et al.	
	3I	20030010637	Jan. 16, 2003	Cummings	
	3J	6,537,433	Mar. 25, 2003	Bryning et al.	
	3K	6,540,895	Apr. 1, 2003	Spence et al.	

FOREIGN PATENT DOCUMENTS

		DOCUMENT NUMBER	PUBLICATION DATE	NAME OF PATENTEE OR APPLICANT	Pages/Columns/Lines Where Relevant Passages/Figures Appear	Check if Translation attached
	3L					
	3M					
	3N					
	3O					
	3P					

OTHER REFERENCES (including Author, Title, Date, Pertinent Pages, etc.)

	3Q	
	3R	
	3S	

EXAMINER

DATE CONSIDERED

FORM PTO-1449

LIST OF PATENTS AND PUBLICATIONS FOR
APPLICANT'S INFORMATION DISCLOSURE
STATEMENT

(Use several sheets if necessary)

ATTY. DOCKET NO.

200314152

APPLICATION NO.

CONFIRMATION NO.

APPLICANT

Winthrop D. Childers et al.

FILING DATE

Herewith

GROUP

REFERENCE DESIGNATION

U.S. PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER	PUBLICATION DATE	NAME	Pages, Columns, Lines Where Relevant Passages or Figures Appear
	4A	20030134416	Jul. 17, 2003	Yamanishi et al.	
	4B	6,596,143	Jul. 22, 2003	Wang et al.	
	4C				
	4D				
	4E				
	4F				
	4G				
	4H				
	4I				
	4J				
	4K				

FOREIGN PATENT DOCUMENTS

		DOCUMENT NUMBER	PUBLICATION DATE	NAME OF PATENTEE OR APPLICANT	Pages/Columns/Lines Where Relevant Passages/Figures Appear	Check if Translation attached
	4L					
	4M					
	4N					
	4O					
	4P					

OTHER REFERENCES (including Author, Title, Date, Pertinent Pages, etc.)

	4Q	
	4R	
	4S	

EXAMINER

DATE CONSIDERED